DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-028500
Date Inspected: 26-Sep-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1930
Location: Job Site

CWI Name:	William Sherwood and Bernie Docena			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS OBG

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 12E-E2.1 corner drop-in top deck plate outside, QA randomly observed ABF/JV qualified welder Mike Jimenez continuing to perform CJP groove welding first time repair on a non-Seismic Performance Critical Member (SPCM) due to Ultrasonic Testing (UT) detected defect on welded splice butt joint. The welder preheated the repair area and its vicinity to >150°F using propylene gas torch prior excavation and then ground smooth the groove of the excavation. After its completion, ABF QC Bernie Docena performed Magnetic Particle Testing (MT) on the removal of the defects with no relevant defect noted during the test. This QA also performed same test verification and noted same result.

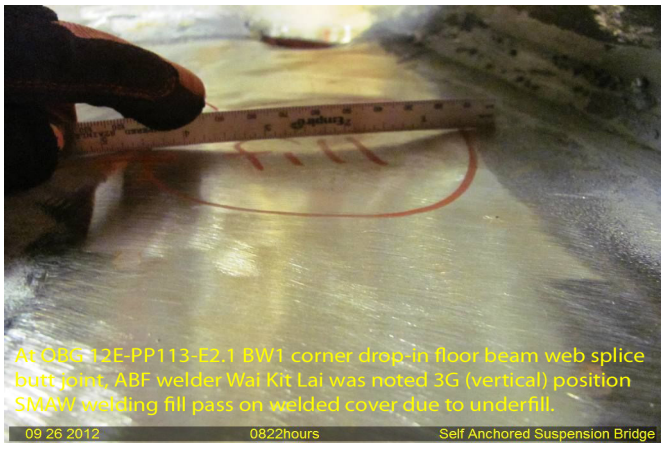
The welder was noted using propylene gas torch to preheat the repair area and its vicinity to >150°F and as soon as the required temperature was attained the welder started performing the welding repair. Welder Mike Jimenez was observed manually welding in 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing Caltrans approved welding procedure ABF-WPS-D15-1000 Repair Rev. 2. Welder Mike Jimenez was noted welding at various locations along the E2.1 grid line. During welding, ABF QC Bernie Docena was noted monitoring the welder's welding parameter with measured working current of 127 amperes on the 3.2mm diameter E7018H4R electrodes. At the end of the shift, repair welding at the locations listed below were completed.

	Y-location	Length	Width	Depth	Remarks
1.	24490mm	100mm	30mm	13mm	Completed.
2.	24620mm	70mm	30mm	13mm	Completed.
3.	28945mm	80mm	25mm	13mm	Completed.
4.	29235mm	80mm	25mm	13mm	Completed.

At OBG 12E-PP-115-E2.1 PS1 corner drop-in floor beam plate stiffener inside, QA randomly observed ABF/JV qualified welder Wai Kit Lai perform CJP groove welding repair. The welder was observed welding in the 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1001-Repairs. The repair excavation was preheated to more than 150 degree Fahrenheit using propane gas torch prior excavation and welding. During the shift, ABF QC William Sherwood was noted monitoring the welder with measured working current of 130 amperes on the 3.2mm diameter E7018H4R electrode. During the shift, the welder has completed the repair mentioned above and has moved to location OBG 12E-PP-113-E2.1 BW1 corner drop-in floor beam web splice butt joint where he fixed the welded cover due to underfill. At the end of the shift, the welder has also completed fixing the cover of the web splice butt joint.

FW Spencer:

At W2 structure, this QA observed the ongoing fillet welding of the utility pipe support PS-2 per Request for Information (RFI) #2939 of CCO 218. FW Spencer welder Damian Llanos was noted 2F fillet welding the 14” long x 10 ¼” wide x ¾” thick base plate with four (4) 5/8” diameter drilled holes to W200 x 52 beam. The QC inspection was performed by Steve Jensen utilizing the Welding Procedure Specification (WPS) identified as Fillet Murex to monitor the tack welding and fillet welding to verify the welding parameters. The welding parameters were observed and recorded as 92 and 125 amperes utilizing 2.4 and 3.2mm E7018 electrodes respectively with the welding performed in the 2F position. The 8mm fillet welding all around the W200 x 52 beam to the base plate was completed at the end of FW Spencer shift.



WELDING INSPECTION REPORT

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Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer